

**Utah Perkins
Program Quality Initiative**

January 2002

Submitted by:

**Public Works, Inc.
90 N. Daisy Avenue
Pasadena, CA 91107
(626) 564-9890
(626) 564-0657 fax**

Table of Contents

Introduction	1
I. Utah's Applied Technology Education System	2
II. Perkins III Accountability	5
Overview of Utah's Indicators	6
Secondary	
ATC	
Postsecondary	
Performance Results from Year Two (2000-01)	13
Secondary	
ATC	
Postsecondary	
III. Program Quality Initiative Process	23
The Process	23
Public Works, Inc. and the Workshops	24
Summary of the Self-Assessment	25
Secondary	
ATC	
Postsecondary	
Summary of Program Improvement Plans	29
Secondary (by indicator)	
ATC (by indicator)	
Postsecondary (by indicator)	
Summary of Measurement Improvement Strategies	36
Secondary	
ATC	
Postsecondary	
IV. Summary and Next Steps	39
Summary	39
Next Steps and Recommendations	40
Appendices	
Appendix A – Utah Vocational-Technical Education Accountability Report	
Appendix B – Self-Assessment Instrument	
Appendix C – Program Improvement Plan Instruments	

PERKINS PROGRAM QUALITY INITIATIVE

Introduction

The Carl D. Perkins Vocational and Applied Technology Education Act of 1998 brought significant changes to the 1990 Act (Perkins II) that preceded it. In particular, the reauthorization of Perkins legislation brought an increased focus on accountability, including the establishment of both financial incentives and sanctions linked to performance. Perkins III also required states to develop measures linked to four core indicators of performance, using percentage or numerical performance levels. These levels were first set using 2000 performance levels, and by the end of 2001 states were required to report on how well they met these targets during Year Two (2000-01) of Perkins III implementation.

In response to the increased emphasis on accountability, the state of Utah instituted a Program Quality Initiative Process designed to assess vocational and technical education programs carried out with Perkins III funds. Utah has taken the Perkins III requirements to mean the use of data to measure and improve the quality of programs at the secondary and postsecondary level. To ensure system-wide participation, a series of one-day meetings were held for all Perkins recipients at the secondary and postsecondary level. At these meetings facilitated by Public Works, Inc., a non-profit educational consulting firm, participants reviewed Perkins performance requirements, identified current performance levels and issues, and developed strategies for improving performance. In addition, recipients were required to complete the following documents:

- Self-Assessment. Each recipient was asked to rate their programs on a series of indicators linked to Perkins III goals and the Utah Office of Education's ATE Strategic Goals.
- Program Improvement Plan. This document asked each Perkins recipient to identify performance problems and issues, and then devise a strategy with an action plan to address the issue.

This report synthesizes these results of the Program Quality Initiative Process described above. Information presented in the report includes an analysis of state-level Perkins 2001 performance data, as well as contextual background needed to interpret the outcome data.

The organization of the report is as follows. First, Utah's Applied Technology Education system is described along with Utah's performance measures linked to the Perkins III core indicators. The second section of the report provides an examination of Utah's 2000-01 performance data, as well as a synthesis of self-assessment and improvement plans completed by local Perkins recipients. The third section of the report presents information on improving Perkins III accountability measures and reporting systems. In the last section of the report, next steps and recommendations are outlined.

I. Utah's Applied Technology Education System

ATE Strategic Goals

ATE Mission Statement:

The Mission of Utah Applied Technology Education is to provide all students a seamless education system, driven by a Student Education Occupation Plan (SEOP), through competency-based instruction, culminating in essential life skills, certified occupational skills, and meaningful employment.

ATE has four strategic goals to carry out this mission:

- Prepare students to meet challenging academic standards
- Prepare students for broad-based careers and further education beyond High School
- Prepare students to meet challenging industry skill standards
- Help special population students succeed in the same areas

Perkins III is administered by the State Board of Education, which is designated as the Eligible Agency for Federal Perkins funds.¹ Utah is divided into ten planning regions with each region responsible for coordinating secondary and postsecondary programs in order to avoid unnecessary duplication at all levels of the education system. Utah includes forty secondary school districts. Postsecondary technical education occurs under the Utah State Board of Regents, which includes eight postsecondary colleges and universities, and ten Applied Technology Colleges (ATCs).

In September 2001, governance of the ATCs switched from public education to the Board of Regents, and the ATCs became Regional Applied Technology Colleges under the Utah College of Applied Technology. Though postsecondary institutions, the ATC system is an important resource for both high school and postsecondary students pursuing applied technology careers.

Utah ATE Institutions

At the secondary level, ATE activities are provided through 107 comprehensive high schools, where at least one ATE course is required for high school graduation. High school-aged students participate in initial occupational preparation courses that form the foundation of ATE offerings. Centralized ATE activities are also offered through technical centers operated within a district. Other aspects of secondary ATE education

¹ Information for this section summarized from the Utah State Plan for Perkins III.

supported by Perkins are Utah's comprehensive guidance programs, which operate in all secondary schools (grades 7 to 12). Perkins funding will continue to assist these programs, with a goal of further reductions in the counselor/pupil ratio (currently at 1 to 429). Work-based learning for secondary students is also supported by Perkins funding.

Applied Technology Colleges (ATCs) operate under the Utah College of Applied Technology (UCAT). These colleges provide both foundation and job ready occupational training to high school and adult students. They also provide occupational upgrade training to individuals who are already employed. Using on-going input from local industry groups, ATCs are designed to prepare students for high tech, high paying jobs (secondary and postsecondary). Upgrade training is provided to address specific needs of employers in the form of custom fit and short-term intensive training.

Postsecondary ATE activities are offered through A.A.S. and A.S degree programs and ATE certificate programs at the state's eight postsecondary colleges and universities. Perkins funding is used by postsecondary institutions to support career counseling, advisory and support activities as well as marketing and outreach strategies to recruit non-traditional students into ATE programs. Perkins funding is also used to support the accreditation process for postsecondary ATE programs receiving federal funding conducted by the State Office of Education, Applied Technology Education Services Division.

Secondary Skills Certification Program

In the late 1980s Applied Technology Education (ATE) began to implement competency based testing. ATE first piloted tests in Accounting, Word Processing and Data Processing. Other program areas also began to implement competency based testing during this time.

In 1995, the Legislature prompted further development of the testing system when it determined that up to 20% of ATE funding would be allocated based on student performance. Since that time, competency based testing has grown to become an integral part of ATE curriculum, program improvement and accountability strategies. As part of the Legislature's 1995 initiative, 10% of ATE funding was to be distributed through the Skills Certification program. In 1997, this percentage increased to 12% for incentive funding. The primary purpose of the assessment system is to improve ATE program curriculum and instruction through the use of incentives based on student performance. The Skills Certification program is also used to report vocational and technical skill attainment for Perkins III performance measures.

The Skills Certification program was developed by establishing a core set of skills identified by program specialists and teachers, with the support of business and industry. Each of the assessments in the Skills Certification program is designed to evaluate how individual students, programs, schools and districts are performing based on a set of standards used consistently throughout the state. Districts receive an incentive based on the performance of their students on the assessments in the various program areas. In

addition, students who pass a given performance assessment and answer eighty percent of the questions on the multiple-choice assessment correctly receive a certificate that lists the standards measured by the given test. While the assessment system is not a formal certification program, the certificates issued to students can be used as evidence of their accomplishments when seeking a job or in applying for further education and training.

ATC Performance System

Beginning in 1996, the Utah Applied Technology Centers, then governed by the State Office of Education, initiated a system of performance measures and productivity incentives. In addition to membership hours and growth, common definitions for completers and placements were adopted and implemented system wide. Initially, job placements required letters signed by employers verifying the employment and the relatedness of the work performed. However, due to the difficulty of obtaining employer responses, the State Office in conjunction with the Department of Workforce Services, developed a system to match students to employment using Social Security numbers. This process has been used since 1997. With the advent of Perkins III, it has been expanded for use with high school and postsecondary placements.

In 1998, the ATCs added State Approved Competency Certifications to their performance measures. These are industry, state or national certifications used to determine skill levels of students completing programs at the ATCs. Since ATCs do not offer credit or grades, competency certifications are extremely important in measuring performance of ATC students.

Postsecondary Work Keys Assessment

Weber State University College of Science and Technology and College of Health is piloting the use of the Work Keys assessments for students completing an ATE certificate, A.A.S. or approved ATE A.S. program. Work Keys is an assessment system developed by ACT to support the implementation of the recommendations in the SCANS report. The assessments are designed to assess workplace skills in the following categories: Reading for Information, Applied Mathematics, Listening, Writing, Teamwork, Applied Technology, Locating Information and Observation. The Work Keys system is composed of three parts: job analysis, skill assessment and instructional support. Work Keys uses job analysis by employers and educators to determine the level of skill required in specific occupations. Participants are then assessed to ascertain the current skill level of individuals. Work Keys then provides information to instructors to support improving participant skill levels. Students will complete Mathematics, reading and location and interpretation of information Work Keys assessments as an additional indicator of performance to be pilot tested at WSU only. If the pilot is a success, other postsecondary institutions may consider the use of Work Keys as a performance measure of student skills.

II. Perkins III Accountability

In 1998, the reauthorization of Perkins legislation (Perkins III) required that states create a high stakes system of accountability with both the potential for incentive performance funds and a provision to withhold money from states with low performance. At a minimum, Perkins III requires that states measure the following four core indicators of performance:

- (1) Student attainment of challenging State established academic, and vocational and technical skill proficiencies;
- (2) Student attainment of a secondary school diploma or its recognized equivalent, proficiency credentials in conjunction with a secondary school diploma, or a postsecondary degree or credential;
- (3) Placement in, retention in, and completion of, postsecondary education or advanced training, placement in military service, or placement or retention in employment; and
- (4) Student participation in and completion of vocational and technical education programs that lead to nontraditional training and employment.

Perkins III required that states set percentage or numerical performance levels for each of the core indicators by both secondary and postsecondary levels. In addition, states are required to report each performance indicator by special population, vocational program area and Tech Prep.² To determine the performance levels for each year, data from 2000 were collected to be used as a baseline. States had the opportunity to determine whether they thought their 2000 data was a fair representation of their vocational education programs a typical year. Some indicator performance levels were then adjusted for the following year. Since then, the State of Utah has adjusted performance levels for later years (2002, 2003 and 2004).

Measurement strategies were identified initially in August and September 1999 following the OVAE Accountability meetings held in Chicago. Groups of ATE Directors met and used the Quality Criteria Rubrics to select the most practical and useful approaches. These were fine tuned over the next two years. Public Works, Inc. provided assistance under OVAE's Technical Assistance program in analyzing, selecting and developing the approaches.

Once the approaches were determined, data elements and reporting procedures were developed. Baseline data were collected for FY 2000, and these became the basis for negotiating performance targets for FY 2001, and years 3, 4, and 5.

² Special populations in Perkins III include individuals with disabilities, economically disadvantaged individuals (including foster children), individuals preparing for nontraditional employment, single parents (including single pregnant women), displaced homemakers, and individuals with other barriers to educational achievement, including individuals with limited English proficiency.

Overview of Utah's Performance Indicators

This section includes the following components to Utah's Performance Indicator System:

- 1) Student definitions;
- 2) Secondary, Postsecondary and Postsecondary Tech College Performance indicators; and
- 3) Measurement definitions and approaches.

State Adjusted levels of performance for each measure and special population subgroup can be found in Appendix A.

Secondary Measures

SECONDARY DEFINITIONS:

Secondary Concentrator is defined as a student who completes three semesters (1.5 credits) of training in the same ATE program area during grades 9-12. An ATE Program area consists of all courses beginning with the same first two digits of the CIP Code.

Secondary Completer is defined as a concentrator who graduates with his or her class.

A *secondary enrolled Tech Prep* student is defined as a student whose SEOP reflects the student's career area and specific goals are identified that lead the student toward successful completion of the career goal and tech-prep program. A determination is made at least annually that the student is making progress toward the completion of the specified career goal (SEOP career area matches concentrator area) AND who is enrolled in the secondary portion of an articulated tech-prep program.

A *Tech Prep secondary completer* is a tech-prep enrolled student who completes three applied technology education courses within a program area (vocational concentrators) (Reported as a senior, coursework can be completed 9th – 12th grade).

Measure #1S1

Approach: National Assessment (SAT)

Academic Attainment

Percent of ATE Concentrators scoring at or above the State average on the 11th grade Stanford Achievement Test. Scores on the State's criterion referenced core curriculum tests may be factored into this measure in the future.

Numerator: Number of Concentrators scoring at or above the State Average
Stanford Achievement Test
Denominator: Number of Concentrators who matched with SAT database

Measure #1S2

**Approach: National/State Standard
and local Assessment System**

Skill Proficiencies

Percent of ATE Concentrators passing one or more ATE Skills Tests in an area of concentration.

Numerator: Number of Concentrators passing a Skills Test in area of
concentration
Denominator: Number of Concentrators who matched with skills testing database

Measure #2S1

Approach: State/Local Administrative Data

Completion

Percent of ATE Concentrators receiving High School Diplomas with graduating class.

Numerator: Number of Concentrators receiving a High School Diploma with
class
Denominator: Number of Concentrators enrolled October 1st

Measure #2S2

Diploma Credential

N/A for secondary education. Utah does not award certificates or credentials other than HS Diploma

Measure #3S1

Approach: Admin Record Exchange

Placement

Percent of ATE Completers who are placed in employment within the next quarter after completion, or in postsecondary education Fall Semester, or the military.

Numerator: Number of Completers placed in Employment within next quarter
(within Utah only) or enrolled in Higher Education for the Fall
Semester (in a Utah public postsecondary institution)
Denominator: Number of Completers

Measure #3S2

Secondary Retention

Percent of ATE Completers who are placed in employment, postsecondary education or advanced training, and who are still employed three months later, or enrolled the following semester.

Measure #4S1**Approach: State/Local Administrative Data***Non-traditional Participation*

Percent of non-traditional students enrolled in non-traditional programs.

Numerator: Number of non-traditional students enrolled in non-traditional programs

Denominator: Number of students enrolled in non-traditional programs

Measure #4S2**Approach: State/Local Administrative Data***Non-traditional Completion*

Percent of non-traditional students completing at least three courses (concentrating) in non-traditional programs.

Numerator: Number of non-traditional concentrators completing non-traditional programs

Denominator: Number of concentrators completing non-traditional programs

Postsecondary Measures

POSTSECONDARY DEFINITIONS:

Postsecondary Concentrator is defined as full-time students (initially registering full-time) with declared majors in ATE Certificates, or A.A.S. or approved Applied Technology Education A.S. Degrees

Postsecondary Completer is defined as a concentrator who graduates with an ATE Certificate, A.A.S. or approved Applied Technology A.S. Degree.

A *postsecondary enrolled Tech Prep* student is defined as a student who completes the secondary portion of an articulated tech-prep program and is enrolled in the postsecondary portion of an articulated tech-prep program AND has a declared major in a college, or is enrolled in preparatory program at an ATC.

A *Tech Prep postsecondary completer* is a tech prep enrolled student who graduates with an ATE Certificate, or A.A.S. or approved Applied Technology A.S. Degree.

Measure #1P1

Approach: Academic Grade Point Average

Academic Attainment

Percent of concentrators achieving a GPA of 2.0 or higher in general education courses across all Applied Technology certificates, and A.A.S. and approved A.S. degree programs.

Numerator: Number of Concentrators achieving a GPA of 2.0 or higher in Gen Ed Courses

Denominator: Number of Concentrators

Measure #1P2

Approach: Vocational/Technical Grade Point Average

Skill Proficiencies

Percent of concentrators achieving a GPA of 2.0 or higher in Applied Technology Courses across all Applied Technology certificates and A.A.S. and approved A.S. degree programs.

Numerator: Number of Concentrators achieving a GPA of 2.0 or higher in ATE courses

Denominator: Number of Concentrators

Measure #2P1

Approach: State/Local Administrative Data

Completion

Percent of concentrators graduating with an Applied Technology certificate, or A.A.S. or approved A.S. Degree.

Numerator: Number of Concentrators graduating with degrees or certificates
Denominator: Number of Concentrators

Measure #3P1

Approach: Administrative Record Exchange

Placement

Percent of completers who are placed in employment, within the next quarter, within the state.

Numerator: Number of Completers placed in Employment within the next quarter, within the state
Denominator: Number of Completers

Measure #3P2

Retention

Percent of completers who are placed in employment, and are still employed three months later.

Numerator: Number of completers who are placed in employment, and are still employed three months later
Denominator: Number of completers who graduate with degrees or certificates and who are placed in employment

Measure #4P1

Approach: State/Local Administrative Data

Non-traditional Participation

Percent of non-traditional students participating in non-traditional programs.

Numerator: Number of non-traditional students enrolled in non-traditional programs
Denominator: Number of students enrolled in non-traditional programs

Measure #4P2

Approach: State/Local Administrative Data

Non-traditional Completion

Percent of non-traditional students completing non-traditional programs.

Numerator: Number of non-traditional Completers of non-traditional programs
Denominator: Number of Completers of non-traditional programs

Postsecondary Tech College Measures

POSTSECONDARY TECH COLLEGE DEFINITIONS:

Postsecondary Tech Concentrator is defined as adults completing 60 or more membership hours in preparatory programs.

Postsecondary Tech Completer is defined as a concentrator also designated as a program completer, skill completer, or pre-completion job placement.

Measure #1A1/1A2/2A1

Approach: Local Standards and Assessment Systems

Academic/Skill/Completion

Percent of concentrators enrolled in USOE Approved Certification programs receiving one or more USOE Approved Certification.

Numerator: Number of Concentrators receiving USOE Approved Certifications
Denominator: Number of Concentrators enrolled in USOE Approved Certifications programs

Measure #3A1

Approach: Administrative Record Exchange

Placement

Percent of concentrators who are placed in employment within three months of completion, or in postsecondary education, or further training, or the military.

Numerator: Number of Completers placed in Employment within next quarter (within Utah) or enrolled in High Ed Fall Semester (at a public Utah postsecondary institution)
Denominator: Number of Completers

Measure #3A2

Postsecondary Retention

Percent of Concentrators who are placed in employment and who are still employed three months later.

Measure #4A1

Approach: State/Local Administrative Data

Non-traditional participation

Percent of postsecondary students enrolled in non-traditional programs.

Numerator: Number of non-traditional adult students enrolled in non-traditional programs
Denominator: Number of adult students enrolled in non-traditional programs

Measure #4A2**Approach: State/Local Administrative Data***Non-traditional completion*

Percent of adult students completing non-traditional programs.

Numerator: Number of adult non-traditional completers of non-traditional programs

Denominator: Number of adult completers of non-traditional programs

Results of the Performance Indicators

Utah's Performance Results - Year 2 (2000-01)

Overall, the State of Utah did well in meeting its Perkins III adjusted performance levels for 2001. As shown below, in the cases where the performance levels were not met, the State was very close to the target overall.

A larger issue impacting Utah's performance results hinges on the progress of student subgroups or special populations. For certain indicators, subgroups failed to meet performance goals. In most of these cases, a relatively small number of students classified in these subgroups as well as wide variation across the state limit the interpretation of the data. For example, the total population of Limited English Proficient students in Utah is relatively small (4.9%), with the vast majority of these student concentrated in the Salt Lake City, Provo and Ogden metropolitan areas. As such, reports of LEP subgroup performance in the more rural areas of Utah is of limited utility. In addition, it is difficult to collect reliable data for some subgroups. For example, single parents and displaced homemakers are difficult to identify.

In addition, a cursory review of the data by Perkins recipient suggests that errors in data input and coding are prevalent. For example, there were many "zeros" in the numerator of the *academic attainment* indicator for academically disadvantaged students. The Applied Technology Colleges (ATCs), had little, if any, data on academically disadvantaged students (defined as those students with a 2.0 or lower GPA). In general, the postsecondary institutions and ATCs had little data on most subgroups for 2001, which may be a reflection of both the actual population participating in applied technology education at these institutions and a lack of reporting on (and identification of) special population subgroups by these institutions.

The following sections summarize an analysis of the performance data of secondary, ATE and postsecondary institutions.

Secondary Performance

Summary. The State of Utah achieved considerable success in graduating its high school students, and thus *completion* was the indicator most successfully met by the secondary institutions. There was a very high rate of graduation for all students, including those students defined as academically disadvantaged (having a 2.0 or lower GPA). In regards to non-traditional job training, secondary institutions achieved more success with student participation in non-traditional programs (particularly males participating in non-traditional programs) than they did with completion of these programs (although females lagged behind males in this respect as well).

Academic attainment among secondary students was measured by the percentage of ATE concentrators scoring at or above the state average on the Stanford 9 test. Overall, Utah exceeded the *academic attainment* targets. However, most student subgroups had trouble meeting the State targets. Especially low levels of performance on this indicator were posted by disabled students (actual level of performance was 3.99% versus the goal of 48.28%) and academically disadvantaged students (17.09%). Additionally, only 27.15% of the high school LEP students met Stanford 9 targets.

	No. in Denominator	No. in Numerator	Performance Target	Actual Performance	Met Target
State Overall	17,915	8,673	48.28	48.41	Yes
Male	9,066	4,453	48.28	49.12	Yes
Female	8,849	4,220	48.28	47.69	No
Economically Disadvantaged	2,247	824	48.28	36.67	No
Limited English Proficient	803	218	48.28	27.15	No
Disabled	702	28	48.28	3.99	No
Single Parents	0		48.28	n.a.	n.a.
Displaced Homemakers	0		48.28	n.a.	n.a.
Non-traditional	1,386	598	48.28	43.15	No
Academically Disadvantaged	1,720	294	48.28	17.09	No
Tech Prep	1,708	842	48.28	49.30	Yes

Skill proficiencies were measured using the percentage of concentrators passing a skill test in their area of concentration. Both State overall and female students exceeded the benchmark for skill proficiencies (62.80% and 68.34%, respectively, versus the benchmark of 61.61%), while all other groups did not meet the adjusted performance level. The lowest results were posted by disabled students (28.65%).

	No. in Denominator	No. in Numerator	Performance Target	Actual Performance	Met Target
State Overall	8,360	5,250	61.61	62.80	Yes
Male	3,749	2,099	61.61	55.99	No
Female	4,611	3,151	61.61	68.34	Yes
Economically Disadvantaged	975	513	61.61	52.62	No
Limited English Proficient	285	130	61.61	45.61	No
Disabled	342	98	61.61	28.65	No
Single Parents			61.61	n.a.	n.a.
Displaced Homemakers			61.61	n.a.	n.a.
Non-traditional	732	417	61.61	56.97	No
Academically Disadvantaged	579	208	61.61	35.92	No
Tech Prep	656	375	61.61	57.16	No

Completion for secondary institutions was measured by using the percentage of concentrators receiving a high school diploma with their class. The state as a whole and all subgroups for which there were data exceeded the benchmark (with the exception of academically disadvantaged students). Academically disadvantaged students, however, only missed reaching the desired performance level of 88.93% by less than one percentage point. The state exceeded this performance level as a whole by reaching a level of 97.04%.

	No. in Denominator	No. in Numerator	Performance Target	Actual Performance	Met Target
State Overall	22,023	21,371		97.04	Yes
Male	11,180	10,812	88.93	96.71	Yes
Female	10,843	10,559	88.93	97.38	Yes
Economically Disadvantaged	3,037	2,927	88.93	96.38	Yes
Limited English Proficient	1,186	1,126	88.93	94.94	Yes
Disabled	1,231	1,164	88.93	94.56	Yes
Single Parents			88.93	n.a.	n.a.
Displaced Homemakers			88.93	n.a.	n.a.
Non-traditional	1,751	1,693	88.93	96.69	Yes
Academically Disadvantaged	2,995	2,632	88.93	87.88	No
Tech Prep	2,068	2,024	88.93	97.87	Yes

Placement and retention data for 2001 will not be available until January 2002. For secondary institutions, this indicator is measured using the percentage of completers placed in employment within the next quarter or enrolled in higher education within the state for Fall Semester. The State of Utah Office of Education has an agreement with the Department of Workforce Services (DWS), which enables the department to do a match by Social Security number to the employment databases. As a result, Utah is in a better position than most states in terms of reporting out the long-term impact of Perkins programs. Nonetheless, considerable data challenges exist regarding both the collection and accuracy of Social Security numbers. Indeed, many school districts reported that it is increasingly difficult to collect this data, due to both parent refusal and a growing influx of undocumented immigrants in some regions of the state. The state is able to collect about 69% of the high school students' Social Security numbers. The state is also not able to track the employment status of students that leave the state which, depending on the area, can include a sizeable number of students finding employment in Arizona, Colorado, and Nevada. In spite of these weaknesses, however, Utah is far ahead of other states in attempting to monitor the success in measuring and meeting placement.

Participation in non-traditional occupations was measured for secondary institutions by the percentage of students in non-traditional programs who are considered non-

traditional students. While the state as a whole barely missed meeting the performance goal (34.26% versus 34.78%), males as a group exceeded the benchmark (44.81%), while female students did not meet the goal (23.23%). Other subgroups either met or were very close to meeting the benchmark.

	No. in Denominator	No. in Numerator	Performance Target	Actual Performance	Met Target
State Overall	87,031	29,821	34.78	34.26	No
Male	44,499	19,940	34.78	44.81	Yes
Female	42,532	9,881	34.78	23.23	No
Economically Disadvantaged	18,554	6,758	34.78	36.42	Yes
Limited English Proficient	5,949	2,007	34.78	33.74	No
Disabled	7,123	2,796	34.78	39.25	Yes
Single Parents			34.78	n.a.	n.a.
Displaced Homemakers			34.78	n.a.	n.a.
Non-traditional	87,031	29,821	34.78	34.26	No
Academically Disadvantaged	19,676	7,626	34.78	38.76	Yes
Tech Prep	2,663	786	34.78	29.52	No

Completion in non-traditional occupations was measured for secondary institutions by the percentage of concentrators completing non-traditional programs who are non-traditional students. Again, females as a group did not meet the required levels for this indicator, which is likely the reason the state as a whole did not meet this benchmark. The performance level for females was 11.57% compared to the adjusted performance level of 17.04%. Males as a group exceeded the benchmark (19.60%), as did economically disadvantaged and LEP students.

	No. in Denominator	No. in Numerator	Performance Target	Actual Performance	Met Target
State Overall	10,777	1,693	17.04	15.71	No
Male	5,550	1,088	17.04	19.60	Yes
Female	5,227	605	17.04	11.57	No
Economically Disadvantaged	1,574	281	17.04	17.85	Yes
Limited English Proficient	516	103	17.04	19.96	Yes
Disabled	793	128	17.04	16.14	No
Single Parents			17.04	n.a.	n.a.
Displaced Homemakers			17.04	n.a.	n.a.
Non-traditional	1,693	1,693	17.04	100.00	Yes
Academically Disadvantaged	1,515	313	17.04	20.66	Yes
Tech Prep	896	99	17.04	11.05	No

Applied Technology Colleges Performance

The indicators for **academic attainment, skill proficiency, and completion** are all combined into one indicator for the Applied Technology Colleges. The measurement used was the percentage of ATE concentrators receiving USOE-approved certifications. The state just missed meeting the goal of 29.80%, with 28.67% meeting the performance goal. Males and Limited English Proficient students exceeded the set goals (33.06% and 47.50%, respectively), while all other groups did not meet the goal.

	No. in Denominator	No. in Numerator	Performance Target	Actual Performance	Met Target
State Overall	2,152	617	29.80	28.67	No
Male	844	279	29.80	33.06	Yes
Female	1,308	338	29.80	25.84	No
Economically Disadvantaged	521	139	29.80	26.68	No
Limited English Proficient	40	19	29.80	47.50	Yes
Disabled	160	43	29.80	26.88	No
Single Parents	121	17	29.80	14.05	No
Displaced Homemakers	23	4	29.80	17.39	No
Non-traditional	338	84	29.80	24.85	No
Academically Disadvantaged	29	6	29.80	20.69	No
Tech Prep			29.80	n.a.	n.a.

Placement data for 2001 will not be available until January 2002, while **retention** data will not be available until March 2002. For the Applied Technology Colleges, this indicator is measured using the percentage of completers placed in employment within the next quarter or enrolled in higher education within the state for Fall Quarter. The State of Utah has an agreement with the Department of Workforce Services and does a match by Social Security number to the employment databases. The State collects approximately 93% of the ATC students' Social Security numbers. The 2000 data indicate that the ATCs experienced modest success in this area, and ATC Perkins recipients also identified this as a strong area of performance.

Participation in non-traditional occupations was measured for the Applied Technology Colleges by the percentage of adult students in non-traditional programs who are non-traditional. The state as a whole exceeded this benchmark, and did very well with the female subgroup (37.86% versus the target of 17.09%). Meanwhile, males as a group did not come close to meeting the benchmark (8.42%). Other subgroups either met the benchmark or were not far from meeting it.

	No. in Denominator	No. in Numerator	Performance Target	Actual Performance	Met Target
State Overall	17,278	3,091	17.09	17.89	Yes
Male	11,721	987	17.09	8.42	No
Female	5,557	2,104	17.09	37.86	Yes
Economically Disadvantaged	1,051	203	17.09	19.31	Yes
Limited English Proficient	213	83	17.09	38.97	Yes
Disabled	2,635	421	17.09	15.98	No
Single Parents			17.09	n.a.	n.a.
Displaced Homemakers			17.09	n.a.	n.a.
Non-traditional	17,278	3,091	17.09	17.89	Yes
Academically Disadvantaged	113	18	17.09	15.93	No
Tech Prep			17.09	n.a.	n.a.

Completion in non-traditional occupations was measured by the percentage of adult completers of non-traditional programs who are non-traditional students. The state as a whole also met this benchmark (21.33% versus a goal of 15.91%), and both males and females achieved their benchmarks as well (16.87% and 25.75%, respectively). The only two subgroups not meeting the target were not far below. These subgroups include disabled students (14.83%) and academically disadvantaged students (only 52 students total in the latter group).

	No. in Denominator	No. in Numerator	Performance Target	Actual Performance	Met Target
State Overall	2,940	627	15.91	21.33	Yes
Male	1,464	247	15.91	16.87	Yes
Female	1,476	380	15.91	25.75	Yes
Economically Disadvantaged	584	104	15.91	17.81	Yes
Limited English Proficient	49	10	15.91	20.41	Yes
Disabled	209	31	15.91	14.83	No
Single Parents	24	7	15.91	29.17	Yes
Displaced Homemakers	144	49	15.91	34.03	Yes
Non-traditional	627	627	15.91	100.00	Yes
Academically Disadvantaged	52	8	15.91	15.38	No
Tech Prep			15.91	n.a.	n.a.

Postsecondary Performance

Summary. Postsecondary institutions performed well overall on the academic attainment and skills proficiencies indicators. Weak areas, however, were completion and non-traditional completion. It is important to note that postsecondary Perkins recipients were concerned about the validity of subgroup results given the difficulties of obtaining accurate and timely information on membership in special populations.

Academic attainment for postsecondary institutions was measured using the percentage of concentrators achieving a GPA of 2.0 or higher in General Education courses. The state as a whole performed well here, with most groups either meeting or nearly meeting the goal of 75.98%. Disabled students were the only group that came in considerably lower than the goal (61.67%).

	No. in Denominator	No. in Numerator	Performance Target	Actual Performance	Met Target
State Overall	12,120	9,292	75.98	76.67	Yes
Male	6,700	4,993	75.98	74.52	No
Female	5,420	4,299	75.98	79.32	Yes
Economically Disadvantaged	4,135	3,148	75.98	76.13	Yes
Limited English Proficient	408	309	75.98	75.74	No
Disabled	407	251	75.98	61.67	No
Single Parents	186	148	75.98	79.57	Yes
Displaced Homemakers	108	83	75.98	76.85	Yes
Non-traditional	1,001	770	75.98	76.92	Yes
Academically Disadvantaged	2,828	0	75.98	0	No
Tech Prep	959	784	75.98	81.75	Yes

Skill proficiencies, measured by the percentage of concentrators achieving a GPA of 2.0 or higher in ATE courses, was an area in which all goals were met by the state overall and for all subgroups (with the exception of academically disadvantaged students, a subgroup category that suffered from inaccurate data input). The state level of performance in 2001 exceeded the target of 71.96% by nearly 10% reaching 81.44%.

	No. in Denominator	No. in Numerator	Performance Target	Actual Performance	Met Target
State Overall	11,836	9,639	71.96	81.44	Yes
Male	6,625	5,251	71.96	79.26	Yes
Female	5,211	4,388	71.96	84.21	Yes
Economically Disadvantaged	3,896	3,198	71.96	82.08	Yes
Limited English Proficient	323	233	71.96	72.14	Yes
Disabled	361	268	71.96	74.24	Yes
Single Parents	197	152	71.96	77.16	Yes
Displaced Homemakers	120	100	71.96	83.33	Yes
Non-traditional	910	730	71.96	80.22	Yes
Academically Disadvantaged	2,296	1,163	71.96	50.65	No
Tech Prep	971	868	71.96	89.39	Yes

Completion in the postsecondary institutions was measured by the percentage of concentrators graduating with degrees or certificates. The state as a whole missed meeting the adjusted performance level of 16.62% by one percentage point, likely due to the fact that males as a group, Limited English Proficient students and academically disadvantaged students did not meet desired performance levels in this area (12.60%, 12.73%, and 4.56%, respectively). Nontraditional students as a group, at 15.65%, barely missed meeting the benchmark.

	No. in Denominator	No. in Numerator	Performance Target	Actual Performance	Met Target
State Overall	14,420	2,282	16.62	15.83	No
Male	7,993	1,007	16.62	12.60	No
Female	6,427	1,275	16.62	19.84	Yes
Economically Disadvantaged	4,826	805	16.62	16.68	Yes
Limited English Proficient	432	55	16.62	12.73	No
Disabled	548	107	16.62	19.53	Yes
Single Parents	283	89	16.62	31.45	Yes
Displaced Homemakers	150	30	16.62	20.00	Yes
Non-traditional	1,118	175	16.62	15.65	No
Academically Disadvantaged	2,826	129	16.62	4.56	No
Tech Prep	1,149	256	16.62	22.28	Yes

Placement data for 2001 will not be available until January 2002, while **retention** data will not be available until March 2002. For postsecondary institutions, this indicator is measured using the percentage of completers placed in employment within the next

quarter within the state. The State of Utah has an agreement with the Department of Workforce Services and does a match by Social Security number to the employment databases. Postsecondary institutions reported that placement results are lessened by the fact that many of their ATE students leave programs prior to completion to enter employment. As non-completers, these employed students do not count towards the placement target.

Participation in non-traditional occupations was measured for postsecondary institutions by the percentage of adult students in non-traditional programs who are non-traditional. The state as a whole just missed meeting the overall performance goal, attaining 15.47% versus a target of 15.79%. Male students also failed to meet the benchmark (12.66%). Females as a group, however, exceeded the target (18.87%), as did most other subgroups with the exception of single parents and Tech Prep students.

	No. in Denominator	No. in Numerator	Performance Target	Actual Performance	Met Target
State Overall	21,097	3,263	15.79	15.47	No
Male	11,568	1,465	15.79	12.66	No
Female	9,529	1,798	15.79	18.87	Yes
Economically Disadvantaged	4,103	720	15.79	17.55	Yes
Limited English Proficient	288	69	15.79	23.96	Yes
Disabled	667	110	15.79	16.49	Yes
Single Parents	390	48	15.79	12.31	No
Displaced Homemakers	160	27	15.79	16.88	Yes
Non-traditional	21,097	3,263	15.79	15.47	No
Academically Disadvantaged	3,924	668	15.79	17.02	Yes
Tech Prep	2,012	246	15.79	12.23	No

Completion in non-traditional occupations was measured by the percentage of adult completers of non-traditional programs who are non-traditional students. The state as a whole did not meet the adjusted performance level (11.95% versus 14.50%), likely due to the fact that females as a group did not come close to meeting this performance goal (7.64%). The only subgroups meeting or exceeding this benchmark were males and Limited English Proficient students (18.83% and 14.75%, respectively).

	No. in Denominator	No. in Numerator	Performance Target	Actual Performance	Met Target
State Overall	2,343	280	14.50	11.95	No
Male	903	170	14.50	18.83	Yes
Female	1,440	110	14.50	7.64	No
Economically Disadvantaged	909	120	14.50	13.20	No
Limited English Proficient	61	9	14.50	14.75	Yes
Disabled	276	39	14.50	14.13	No
Single Parents	199	13	14.50	6.53	No
Displaced Homemakers	56	2	14.50	3.57	No
Non-traditional	280	280	14.50	100.00	Yes
Academically Disadvantaged	135	8	14.50	5.93	No
Tech Prep	371	52	14.50	14.02	No

III. Program Quality Initiative Process

The Program Quality Initiative Process underway in Utah grows out of a requirement in the Perkins III legislation that states perform an assessment of vocational and technical education programs carried out with Perkins III funds. This process will allow Utah to use Perkins III requirements to improve the quality of programs through the use of performance measurement data.

Perkins III requires that this process must include:

- an assessment of how the needs of special populations are being met and how such programs are designed to enable special populations to meet State adjusted levels of performance and
- an evaluation of the programs, services, and activities assisted under the Act, including preparation for nontraditional training and employment. For this evaluation, the Utah must use State adjusted levels of performance to evaluate activities of local recipients.

In order to meet these requirements, Utah has developed the Program Quality Initiative Process for all secondary and postsecondary recipients of Perkins III funds, which consists of:

- One-day meetings to
 - review Perkins performance requirements,
 - identify current performance levels for each indicator and for each special population category for each recipient,
 - identify performance issues and
 - develop strategies for improving performance
- Submission of a Program Quality Improvement Plan to USOE by each recipient
- Completion of Self-Assessment and Program Quality Improvement Plan by each recipient analyzed and summarized by Public *Works*, Inc.
- Final Report completed by Public *Works*, Inc. that addresses the requirements of Sections 123(b) and 124(b)(1) of the Carl D. Perkins Vocational and Technical Education Act of 1998 including:
 - An evaluation of each eligible recipient's vocational and technical education activities using the State adjusted levels of performance; and
 - An assessment of the vocational and technical education programs carried out with funds under the Act that includes an assessment of how the needs of special populations are being met and how such programs are designed to enable special populations to meet State adjusted levels of performance.

Utah's Program Quality Initiative Process is focused on continuous improvement of all Perkins programming. Utah is unique in that it does not require each locality to meet specific targets in the indicator areas – instead, each recipient is asked to show some level

of improvement each year. The continuous improvement process is never complete, as every year the cycle continues by revisiting goals, outcomes, performance and plans.

Public Works, Inc.—The Workshops

In line with the emphasis on accountability and continuous improvement, a series of workshops were held with all Perkins recipients in November 2001. The ATE Director, ATE support staff person responsible for data input and an Information Technology representative from each eligible recipient attended a one-day mandatory workshop conducted by Public *Works*, Inc., an outside consulting firm which facilitated the meetings designed to:

- Review Perkins performance requirements
- Identify current performance levels at the state level and for each district
 - for each indicator overall
 - for special population categories
- Identify program issues based on levels of performance in each indicator
- Develop strategies for improving performance
- Integrate a self-assessment and planning process in the implementation of Perkins III performance improvement strategies
- Identify issues related to measurement strategies

Public *Works*, Inc. worked with Utah on the program improvement process using the following steps:

- 1) **Establish Goals:** ATE Strategic Goals have been established and form the common guideposts for all vocational programs in the state of Utah.
- 2) **Identify Related Outcomes:** The Perkins III legislation has identified for state and local recipients the areas of student outcomes that must be measured (i.e. academic achievement).
- 3) **Determine Data Sources and Indicators:** Through extensive meetings and thoughtful deliberation, ATE worked with multiple stakeholders to identify data sources related to outcomes and set performance indicators.
- 4) **Set Performance Targets:** Performance targets have been set based on the data and serve as an individualized target for local recipients to meet.
- 5) **Examine the Data:** Based on the data, performance levels were set. Local recipients annually examine their data to ask *What* the data say and *Why* is performance at a particular level?

- 6) **Develop a Program Improvement Plan:** After examining what the data says and why it is at a particular level, it is important to plan *How* improvement will occur during the next year. What strategies will be implemented?
- 7) **Monitor Performance Over Time:** Plans should not be examined annually, but regularly throughout the year to ensure success.

As part of the workshops, each Perkins recipient reviewed each performance indicator and completed a chart that they used to develop an Improvement Plan. This document asked each Perkins recipient to first identify the problem or issue they wished to address, then devise a strategy and an action plan that addressed the issue.

Each Perkins recipient also completed a self-assessment. Perkins recipients were asked to rate themselves on a series of indicators that are linked to Perkins III goals and the Utah Office of Education (USOE)'s ATE Strategic Goals. The self-assessment required Perkins recipients to assess the level at which they are performing various aspects of their vocational education programs (see Appendix B for the self-assessment instrument).

During the workshops, Public *Works*, Inc. and USOE led a discussion to collect feedback on the measurement strategies in place, how they could be improved and problems associated with data collection.

The following section includes a summary of:

- the self-assessment results,
- the improvement plans that were submitted by each Perkins recipient, and
- the issues related to measurement strategies raised during these discussions.

Findings from the Program Quality Initiative Process

Summary of the Self-Assessments

To complete the self-assessment, recipients used a four point rating scale (1=Not at All; 2=Sometimes Done Well; 3=Satisfactory; 4=We are Excelling) on a number of questions in the following categories based on ATE strategic goals and the continuous improvement process:

- Prepare students to meeting challenging academic standards;
- Prepare students for broad-based careers and further education beyond high school;
- Prepare students to meet challenging industry skill standards;
- Help special populations succeed in the same areas; and
- Use a continuous improvement process.

In order to interpret the results, Public *Works*, Inc. calculated average (mean) scores for each question and category of question. These results are presented separately for secondary, ATCs and postsecondary institutions. Please note that while the data in the charts at the beginning of each section represent mean scores of the above five categories, the narrative discusses mean scores of individual questions. The self-assessments were completed by all institutions with current Perkins programs: 40 secondary institutions (school districts), 7 ATCs, and 8 postsecondary institutions.

Secondary

For the most part, the mean score for secondary institutions on individual questions ranged between 2.5 and 3.0. Thus, high ratings for the secondary institutions are considered here to be those above 3.0, while low ratings are considered those below 2.5.

Secondary Self Assessments: Category Ranking Based on Mean Ratings

Category	Overall Category Mean
Prepare students for broad-based careers and further education beyond high school	2.9
Prepare students to meeting challenging academic standards	2.7
Prepare students to meet challenging industry skill standards	2.7
Help special populations succeed in the same areas	2.7
Use a continuous improvement process	2.6

The results from the self-assessments indicate that Utah's secondary Perkins recipients believe that their high school vocational education programs are preparing students for broad-based careers and further education beyond high school. This category received the highest mean rating from secondary institutions on the self-assessment (2.9). Recipients also felt that guidance and counseling systems for students have contributed to student preparation. The two questions focusing on this area received mean ratings of 3.1 and 3.3.

Professional development also received high ratings - specifically in the areas of helping teachers to teach to high academic standards and to assist in the preparation of students for further education (both 3.1). Finally, secondary institutions indicated that their vocational education programs use state of the art technology (3.1) and have equipment and supplies that help prepare their students (3.1).

Recipients were also asked to rate the extent to which they use a continuous improvement process, and all of the questions in this category received less than satisfactory ratings

(category mean was 2.6). In particular, school districts do not seem to be satisfactorily using processes or test data to evaluate the performance of programs (both 2.5).

Recipients also rated specific questions related to helping special populations succeed very low. Utah's school districts do not appear to believe that they are adequately preparing special populations in key areas of vocational education including meeting industry skill standards (2.4), challenging academic standards (2.5) or state-adjusted levels of performance (2.4).

ATCs

Applied Technology Colleges rated themselves higher on the self-assessments overall than did the secondary institutions. Thus, high ratings for the ATCs are considered here to be those at a mean of 3.5 or higher, while low ratings are considered to be those below 3.0.

ATC Self-Assessments: Category Ranking Based on Mean Ratings

Category	Overall Category Mean
Prepare students to meet challenging industry skill standards	3.4
Prepare students to meeting challenging academic standards	3.2
Use a continuous improvement process	3.1
Help special populations succeed in the same areas	3.1
Prepare students for broad-based careers and further education beyond high school	3.0

The results from the self-assessments indicate that Utah's Perkins recipients at the ATCs believe their vocational education programs are preparing students to meet challenging industry skill standards, with this category receiving a mean rating of 3.4. In particular, the ATC Perkins recipients rated themselves highly on the following: providing recognizable certificates or credentials to students completing a program (3.9), teaching all aspects of the industry in ATE courses (3.6), preparing students to meet challenging industry skill standards (3.6), and using state of the art technology (3.6).

The only category receiving a mean rating lower than 3.0 was that of preparing students for broad-based careers and further education beyond high school. This may be due to the fact that the ATCs' focus is to prepare students for careers rather than further education as well as the fact that training in the ATCs can be quite job-specific. The two questions receiving the lowest mean ratings, both within this category, asked about the extent to which the institution has articulation agreements or other postsecondary agreements in place (2.6) and to what extent programs teach the SCANS competencies (2.6). ATCs also gave themselves lower ratings in terms of reinforcing academics in

vocational areas (2.7), providing work-based learning experiences (2.7) and offering professional development to assist in preparing students for further education (2.7). Finally, ATCs gave a 2.7 mean rating to the performance of special populations meeting the state adjusted levels of performance.

Postsecondary

Postsecondary institutions, like the ATCs, generally rated themselves higher than did the secondary institutions. Most questions received a mean rating of 3.0 or above. Thus, high ratings for the postsecondary institutions are considered here to be those at 3.5 or higher, while low ratings are considered to be those below 3.0.

Postsecondary Self-Assessments: Category Ranking Based on Mean Ratings

Category	Overall Category Mean
Prepare students to meet challenging industry skill standards	3.4
Prepare students for broad-based careers and further education beyond high school	3.1
Prepare students to meeting challenging academic standards	3.0
Use a continuous improvement process	2.9
Help special populations succeed in the same areas	2.8

Postsecondary Perkins recipients, similar to those from the ATCs, seem to feel their programs are doing a good job of preparing their students to meet challenging industry skill standards, as this was the category that received the highest mean rating (3.4). In particular, these Perkins recipients gave themselves high ratings in terms of teaching all aspects of the industry in ATE courses (3.6), improving applied technology with programs of size scope and quality (3.6) and preparing students for high technology and telecommunications careers (3.6).

Areas in which postsecondary Perkins recipients viewed themselves as weaker included evaluation and assessment and helping special populations. These categories received the lowest area means (using a continuous improvement process rating equaled 2.9 and helping special populations equaled 2.8). In particular, postsecondary Perkins recipients do not feel they prepare special populations for further education or broad-based careers (both 2.5). The one question receiving a mean rating of less than 2.5 from postsecondary recipients was the extent to which the institutions promote nontraditional training and employment (2.4). Finally, two questions receiving ratings of 2.6 were the extent to which institutions use test data to analyze performance and to what extent institutions work with schools and programs to develop a program improvement plan.

Summary of Program Improvement Plans

After an analysis of their 2000 and 2001 performance on the Perkins III indicators and completion of the self-assessments, workshop attendees were asked to design a Program Improvement Plan. For each indicator, Perkins recipients were asked to identify an issue or problem that needed to be addressed and then devise a strategy and an action plan to address it. In some cases, Perkins recipients chose to focus on a couple of indicators that were particularly weak, while others came up with program improvement strategies for all indicators. Please see Appendix C for the Program Improvement Plan instrument.

Secondary

School districts identified *completion* as the indicator in which they performed the best, which is supported by the 2001 performance data. There was more of a split on which indicator they felt needed the most improvement. *Placement* was picked by the largest number of school districts as needing the most improvement. Many of the rural school districts in particular are struggling with this indicator, as many students must go out of their local area in order to find employment. Lack of a diverse employer base and generally poor or volatile economic conditions (particularly in agriculture and extractive industries) further complicate performance on the placement indicator. *Skills proficiencies* was the area receiving the most mixed response. While some secondary districts saw performance on this indicator as in need of improvement, others considered it to be their best performance area after completion.

In regards to special populations, school districts identified Limited English Proficient and disabled students as their lowest performing students. In many cases, the number of these students at schools was very low, which made data interpretation and drafting of appropriate improvement strategies difficult (particularly in small, rural schools). Many secondary workshop participants openly expressed concerns about the efficacy of creating new programs targeting special populations with small numbers of students.

When asked to identify the highest-performing subgroups, non-traditional students were most commonly identified despite the fact that secondary districts have not consistently met performance goals for female students on either non-traditional participation or completion.

Secondary – Improvement Strategies

In their Program Improvement Plans, secondary institutions identified a number of strategies that they intend to implement to boost performance based on an analysis of their data. These plans for improvement represent a wide range of potential solutions to local performance issues. We have presented a summary below in order to help USOE monitor and support the continuous improvement cycle built into Perkins III implementation.

Academic Attainment

These strategies tended to focus on improving the quality and content of ATE courses and providing more support and guidance to ATE students. Another common area of improvement centered on doing a better job of using data strategically.

Improving Instruction in ATE Courses

- Integrate basic academic skills and objectives into ATE courses.
- Make curriculum more relevant for students (integrate vocational and academic content).
- Improve linkages of course performance to outcomes such as end of course tests and SAT-9 (i.e., integrate skills that will be tested into daily coursework).

Support and Guidance

- Provide additional instruction/remediation for struggling ATE students.
- Provide tutoring - either school wide, or target ATE students who need it.
- Vocational Education Specialists will focus in on students in need and provide extra support.

Strategic use of Data

- Counselors will review the SAT-9 scores of ATE students to target specific students for programs and services.
- Counselors will program ATE students into more challenging academic classes.
- Better identification of concentrators or prospective concentrators and target these students.
- Improve the identification and reporting of students in special populations.

Professional Development

- Provide teacher training on working with special populations.
- Encourage teachers and vocational education teachers to work together.

Skill proficiencies

Secondary respondents were most likely to identify improvement needs in terms of helping teachers understand and support the importance of the skills proficiency exams as well as improving the conditions under which testing takes place.

Professional Development and Mentoring

- Provide workshops on skill certification in order to improve teacher and coordinator awareness of the importance of skills tests.
- Provide peer-to-peer learning on how to achieve better results on skill certification tests (targeted mentoring).
- Integrate skill test results into the teacher evaluation process in order to clearly establish accountability.
- Provide training on the integration of skills standards into classroom instruction.

Test Administration and Student Motivation

- Make sure Social Security numbers are on all tests so that schools get credit for test results.
- Modify timing of tests so that the overall assessment burden is lessened and skills test receive enough importance.
- Expand the number of skill tests.
- Improve testing conditions and strategies for students.
- Help students see the relevance of tests to industry requirements.
- Offer incentives for students such as rewards for performance.

Completion

As indicated above, most secondary district performed well on the completion indicator. As a result, there were few suggestions made for improvement. What was voiced as a need to improve data collection and reporting and a need to target low performing/alternative students to ensure that they graduate with a high school diploma.

Placement

Improvement strategies tended to focus on improving the accuracy of data, enhancing linkages with employers and postsecondary institutions, and providing targeted school guidance for student transitions.

Data Collection and Reporting

- Improve tracking and reporting of student placement by improving the accuracy of student Social Security numbers.
 - Work with elementary/middle schools to collect Social Security numbers earlier.
 - Work with teachers to understand importance of collecting Social Security numbers.
- Improve reporting of end of year student surveys.

Employer and Postsecondary Linkages

- Improve articulation with postsecondary institutions-for smoother transitions (model on Tech Prep programs).
- Improve links with employers /businesses (job placement coordinator/work-based learning specialist).
- Expand/develop Career Centers.

School Support and Guidance

- Keep Student Educational Opportunity Plans (SEOPs) updated to better direct students to work-based experiences.
- Better identification of employers and postsecondary options.
- Implement a senior exit interview.
- Provide special populations with more support in the transition to work.

Non-traditional programs (participation and completion)

Secondary Perkins workshop participants agreed on the need to improve both non-traditional participation and completion. Improvement strategies focused on outreach to students and parents as well as exposure to non-traditional careers. Other suggestions for improvement encompassed enhancing school support and guidance as well as raising awareness among teachers and counselors.

Student and Parent Outreach

- Concentrate on marketing the economic benefits of non-traditional jobs, especially for female students.
- Address parent attitudes through the SEOP process and participation at career fairs.
- Utilize student leadership organizations (peer-to-peer) to market non-traditional participation.
- Market non-traditional programs - increase awareness and acceptance of non-traditional jobs and strengthen non-traditional focus.
 - To counselors and teachers (provide in-service), student-to-student.
 - Develop video of non-traditional jobs.

Career Exploration and Work-based Experiences

- Increase non-traditional course offerings.
- Expose students to role models in non-traditional areas.
- Provide more options in Career Centers.
- Build on the career exploration focus of the TLC (“Technology, Life, Careers”) course offered in 7th grade by reinforcing non-traditional careers in the early high school years.
- Secure internships and job shadowing experiences for students in non-traditional jobs.

Guidance and Support

- Provide LEP tutors and aides in non-traditional program classrooms.
- Identify achievers among special populations and stimulate inclusion.
- Utilize interest/aptitude tests to target students.
- Utilize gender equity state specialists (for presentations, etc.).
- Increase support/encouragement of students to complete non-traditional programs.

Teacher Training and Awareness

- Improve teacher and counselor attitudes about non-traditional programs.
- Provide professional development for teachers that increases awareness of non-traditional programs and how to work with these students.
- Bring in speakers from within these careers.

Applied Technology Colleges

Applied Technology College representatives named *non-traditional completion* as the indicator needing the most improvement, while the *academic attainment/skills/completion* indicator came in second. Although the 2001 data indicate that the ATCs met the *non-traditional completion* indicator as a state, most subgroups, including females, did not meet the adjusted performance level. The ATCs just missed meeting the goal for the *academic attainment/skills/completion* indicator. In contrast to the secondary institutions, placement was seen as the indicator with the highest level of performance.

Applied Technology Colleges – Improvement Strategies

The following represents the array of improvement strategies that ATC Perkins recipients devised to improve their programs.

Attainment/Completion/Skills

These strategies for the most part encompass increasing awareness of data results to staff and increasing the attractiveness of test taking for students.

- Increase teacher awareness of data (indicator results) through more information dissemination.
- Provide data monthly to instructors and then have program managers hold instructors accountable for performance.
- Form local “teams” to summarize local data and strategies.
- Subsidize students’ testing fees to encourage more test taking (e.g., reimburse students who pass the certifications).
- Provide better presentations of data (more user-friendly) to encourage the identification of areas in need of improvement (e.g., disaggregated data on special populations).

Placement

These strategies include providing more targeted support to ATE students for the transition to employment.

- Identify special populations in need of additional assistance from staff.
- Provide job readiness and interviewing skills to help students secure employment.
- Improve “sequenced” guidance and articulation for students who want to go further but need to be linked to another site or program.

Non-Traditional Participation and Completion

Improvement strategies focused on increasing marketing, outreach and support to targeted groups of students.

- Target single parents and monitor their progress through programs.

- Provide additional training for counselors and guidance staff.
- Conduct joint outreach efforts (guest speakers, role models, panel presentations) to secondary students.
- Revise marketing materials to highlight more ethnic, age, and gender representation.
- Increase availability of counseling services by modifying workload (to target services to females).
- Publicize success through student recognition and media exposure.

Postsecondary Colleges

The postsecondary Perkins recipients named *skill proficiencies* as their best performing indicator and *non-traditional participation* as the indicator needing the most improvement, followed by *completion*. For completion, postsecondary Perkins recipients are struggling with the fact that many of their ATE students choose to leave higher education prior to completion because they receive offers of employment. Additionally, students who receive an AA degree are not “counted” as completers if they opt to pursue a baccalaureate degree. The 2001 data indicate the need for more focus in these areas, as the postsecondary institutions did not meet these benchmarks.

Postsecondary – Improvement Strategies

The following represents the array of strategies that postsecondary Perkins recipients devised to improve their programs.

Academic Attainment

Improvement strategies centered on improved identification and targeting of ATE students with guidance and support services.

- Improve identification concentrators/ATE majors.
- Offer more localized tutoring to better target ATE students.
- Train teachers on referral of ATE students to tutoring.
- Organize incoming students into cohorts to provide support.
- Increase the applied academic focus of ATE courses to peak student interest, including the use of SCANS competencies.
- Increase curriculum rigor and requirements, especially math skills of students.

Skill Proficiency

Improvement strategies tended to emphasize faculty connections to the “real world” and enhanced use of technology and equipment in classrooms.

- Keep instructor skills relevant and up-to-date by requiring faculty to spend time in the field and/or incentivize teacher internships by including on-going business exposure in teacher evaluation.
- Provide professional development for instructors linked to industry skill standards.

- Improve the utilization of advisory committees to help design and run training/workshops for instructors.
- Provide updated and more relevant technology and equipment to classrooms.

Completion

Improvement strategies centered on enhancing connections with business and industry and making structural changes in regards to course offerings and requirements.

- Enlist the help of business/industry to have them communicate their support of degree completion to students.
- Increase relationships with employers, as they can offer subsidization of continuing education.
- Pay the student fee for graduation (build into overall student fees) so that students file for receipt of the two-year diploma.
- Encourage completion of AAS before continuing on with BA (make requirement of needing the associates degree before entering bachelors).
- Increase the availability of on-line course offerings so students have more options for fulfilling graduation requirements.
- Restructure the order of course requirements (as an example, put general education courses first) so that students work progressively toward a degree.

Placement/Retention

Improvement strategies were quite targeted, centering on innovative employer linkages and targeted support for students.

- Hire placement counselors to work within each college in order to provide more individualized support to students.
- Implement an internship or apprenticeship requirement.
- Better utilize “craft committees” that connect students with the job market.
- Design customized training programs for employers with guarantees for successful students.

Non-traditional

Improvement strategies focused on enhancing student exposure to non-traditional careers.

- Designate staff person to focus on non-traditional programs.
- Target non-traditional jobs at career fairs.
- Start early with exposure and marketing of non-traditional careers and improve articulation with secondary schools.
- Increase/improve student awareness and attitudes regarding non-traditional careers.

Summary of Measurement Improvement Strategies

Although there has been a great deal of progress made in terms of establishing a state-wide data collection and reporting system linked to Perkins III accountability, there is room for further improvement. During the November workshops, participants were asked about their perspective on improving the current performance indicator system (e.g., indicator definitions, measurement tools and instruments, timing of collection and reporting). Again, because the issues faced by various institutions differ from one another, the comments that came out of these discussions are summarized by type of educational institution.

Secondary

Timing of data collection

Secondary institutions raised concerns with the timing of data collection and the pool of students from which data is collected. Because data relates only to prior year seniors, it is not possible for districts to link performance to current students. Many workshop participants worried about designing appropriate improvement strategies for existing concentrators and completers whose data has not yet been compiled. Better identification of ATE students – or potential ATE students – prior to taking the SAT-9 as juniors would help schools implement strategies that could have some impact on this indicator.

Measures

The use of the Stanford 9 exam as a measure of academic attainment was questioned by some secondary participants. Student GPA and end-of-course core tests were mentioned as possible substitutes. Because these test course-specific content, some participants saw them as more authentic assessments of student academic skill. However, the lack of state-wide curriculum means that there would not be any comparable data. At the same time, requiring an end-of-course test in Algebra as part of the accountability system, for example, would likely have the net effect of raising the bar for all students as more students would enroll in Algebra. Currently, however, there has been no statewide agreement on the content of the core tests and there is therefore a lack of consistency across districts.

Secondary Perkins recipients also discussed ways to enhance student motivation to do well on the Stanford 9. There was consensus that some students do not take the test seriously. Strategies such as linking the SAT-9 to transcripts and/or grades and providing parent outreach were mentioned as ways to raise the profile of the exam as a key accountability indicator.

In regards to assessing *skill proficiency*, secondary Perkins recipients voiced the need for updating existing skills tests and developing new tests for areas that do not have them yet. They also felt there was a need to look closely at how changes in testing procedures impact performance.

There was concern that the *placement* measure is currently too broad, as schools have no way of identifying whether students get placed in a job that is within their area of ATE concentration. An additional weakness with the *placement* indicator is that numerous students are not captured, including those who attend private or out-of-state colleges, take out-of-state jobs, and Mormons who participate in missionary activity. In addition, considerable data challenges exist in terms of matching student Social Security numbers to the DWS database. Moreover, many school districts report that it is an increasingly difficult challenge to collect this data from students, due to both parent refusal and undocumented immigrants. In spite of these weaknesses, however, Utah is far ahead of other states in attempting to monitor the success in meeting this indicator.

Data collection, retrieval and display

Secondary institutions offered several suggestions for improving the turnaround/responsiveness of data retrieval. In general, districts would like more frequent and higher quality feedback from the state, so that they have an opportunity to check the accuracy of data. Suggestions for the state include:

- Allow districts to check PATI (Program Approval for Technology Instruction) data twice per year
- Provide pre-plugged data (student identification number, Social Security number) on skills proficiency exams to improve the accuracy and completeness of placement data. The state already has collected this information for many students, but students who forget to write the correct Social Security number directly onto the test form do not get counted.
- Provide graphic displays of tabled data to help districts understand and absorb the data findings. Utilize line/bar charts for easier readability. Add State level as comparison point rather than leaving this information on a separate chart.
- Send a disk with skills certification test data like SAT-9 to increase the publicity and importance of skills tests. Providing schools with the data from the skills certification tests will allow schools to utilize the data and ultimately raise the profile of these tests to teachers and school staff.
- Take data examination to the next level by providing data by CIP code. This way districts can link outcomes to programs. Currently, data is not disaggregated by program.

Non-traditional

Secondary Perkins recipients recognized the need for better data on non-traditional students by program. There was also some concern over the definitions for non-traditional programs. For example, health care is currently identified as a non-traditional career area for males. Labeling all health professions as non-traditional was seen as not entirely appropriate.

Finally, the need for re-examining accommodations for special populations was acknowledged by these Perkins recipients.

ATCs

Data collection

Like the secondary institutions, ATC Perkins recipients requested more information from the state on data collection expectations and needs. In particular, they want the chance to examine their data farther in advance so they can then work with the state to ensure accuracy. They also requested that the state provide more program-level data (by CIP code).

A large issue for the ATCs was the transition to the upcoming Utah College of Applied Technology (UCAT) system. The former Applied Technology Centers and Services Regions are now under the UCAT umbrella and serve both high school and adult students. The ATCs recognize that new measures may be developed under this system, and emphasized the need to keep some or most of the Perkins data elements constant so that longitudinal comparisons can be made.

ATC Perkins recipients reported that *placement* data is currently inadequate because they cannot link the data to individual students (i.e., they don't know how to work with aggregate placement data). They also indicated a need to improve the timeliness of the data.

Finally, on *skill proficiencies*, the ATCs voiced the need for more certification categories, as there are currently not certification tests for all of the courses offered.

Postsecondary

A big issue for postsecondary institutions during this process has been the identification of special populations. In particular, they have found that single parents and displaced homemakers are very difficult to identify and that different institutions are identifying subgroups differently. Postsecondary Perkins recipients at the November Perkins Accountability workshops requested state assistance in developing a policy/strategy for identifying these individuals.

The implications of the transition to the UCAT system is another issue facing postsecondary Perkins recipients. Questions that have yet to be answered include what does UCAT mean for postsecondary? Is everyone going to a single system (postsecondary and ATCs)? How can the data definition/measurement system be improved or maintained in light of this transition?

Measures

One restriction of the data measures for postsecondary Perkins recipients is the definition of a concentrator. By only allowing full-time students to be included, the "pool" of potential data decreases considerably as many postsecondary ATE students attend part-time.

The measure for *skill proficiencies* was also questioned by postsecondary institutions. The Work Keys assessments may be a better way of measuring skill proficiency rather than GPA. Findings from the pilot study underway at Weber State University study may help the state determine whether there is justification for using the Work Keys assessments as a way to measure student performance.

Definitions

One suggested change that would be helpful for community colleges (and ATCs) would be to change the *placement* indicator definition to include postsecondary transfers to four-year institutions in addition to placement in employment.

Finally, the classification of ATE courses at the postsecondary institutions is problematic. A student in a two-year program cannot get credit for an ATE course unless more than 50% of the students are also ATE students; otherwise, it is counted as a general education course.

IV. Summary and Next Steps

Summary

The State of Utah Department of Education has taken a proactive stance in the evaluation of the programs, services and activities assisted under the Perkins III Act. The evaluation efforts include an assessment of the preparation for nontraditional training and employment and also the extent to which the needs of special populations are being met. For this year's evaluation, localities were actively involved in looking at, understanding and utilizing the performance data of their programs. By combining this understanding of the 2001 performance data with a self-assessment, localities were able to identify strengths and weaknesses and devise strategies for improving their programs.

While many Perkins recipients' improvement strategies centered around data collection and reporting issues, institutions also spent considerable time trying to understand what the data was telling them about their programs. As a result, recipients came up with a variety of strategies to make significant improvements in their programs. In some cases, recipients chose to focus on expanding an already existing activity, while others devised new ones. In many cases, recipients realized that while helpful programs may already exist for students, they were not doing an adequate job of targeting ATE students to ensure that these students were getting the support they needed. Improved identification and targeting of these students as well as increased emphasis on student guidance, and professional development for program staff were common themes of the Program Improvement Plans.

By actively involving the Perkins recipients in this process, a hoped-for outcome is not only stronger vocational education programs, but more regular participation of local institutions in the continuous improvement process. The increased frequency of self-evaluation and utilization of data can help localities become better at monitoring and

improving their Perkins programs on a more regular basis. In this way, local programs will become more data driven and accountable for defined outcomes.

Next Steps and Recommendations

Perkins recipients have completed the first crucial step in assessing program performance and tackling needed program improvements. The next steps for Utah Applied Technology Education in regards to Perkins fall into two categories:

1) Improve systems for collecting data and ensuring accuracy of data.

Perkins recipients had numerous suggestions for how data collection and accuracy could be improved. Next steps that can be taken relate to Perkins recipients' understanding of and accessibility to data, identification of students, and increasing the opportunities for data collection (such as increasing the number of skills tests).

2) Provide additional technical assistance and support to Perkins recipients

To ensure the implementation of Program Improvement Plans, follow-up must be undertaken by the State. Ensuring the quality of Program Improvement Plans as well as their implementation are key tasks.

Improve Systems for Data Collection and Accuracy

Provide clearer and more frequent communication about data issues. Perkins recipients need to have a better understanding from the State as to what data is needed and why. Improving the dissemination of such information can help speed up the data collection process and improve internal data collection systems at the local level. Additionally, earlier and more frequent dissemination of data to localities would allow recipients to be more involved in checking the accuracy of their data.

Make data more user-friendly. Perkins recipients made suggestions for increasing data readability, such as graphs, charts, and inserting State averages for comparison purposes. Additionally, providing localities with their data on a disk would allow school districts and institutions to make better use of the data on a local level.

Better identification of students. While schools can do much to improve their local systems for identifying ATE students and special populations, the State can also assist in these matters. To improve the accuracy of student Social Security numbers, for example, student social security numbers already collected could be placed on all skills tests so that a match will be ensured.

Additionally, strategies for targeting special populations need to be revisited. Postsecondary institutions, including the ATCs, are struggling with the identification of these students and requested assistance from the state in developing a statewide policy. Currently, institutions are using varying definitions for identifying some populations and improved consistency across the state is needed.

Work to link Perkins and UCAT accountability. Postsecondary institutions (including ATCs) are unsure as to the effect of the transition to the UCAT system will have on Perkins. The State needs to provide assistance to ensure the maintenance and/or improvement of definitions and measurements.

Improve alignment between vocational educational course offerings and skills tests. Currently, there are ATE courses for which a skills test is not offered. Perkins recipients at secondary institutions and ATCs voiced the need for updating existing skills tests and developing new tests for areas that do not have them yet. In some cases, it makes does not make sense to develop an assessment for a particular course with low enrollment. The state may wish to consider closing the course offering. In other cases, standards should be developed for emerging vocational areas. Alternatively, in many cases standards exist, but training has not been conducted to better align curriculum, and therefore, assessment.

Technical Assistance

Conduct a more comprehensive assessment of each Perkins recipient's Program Improvement Plan. Variation across institutions exists in the quality of the improvement plans. A more comprehensive assessment of each Perkins recipient Program Improvement Plan will help ensure the utility of these plans. Feedback to Perkins recipients on how well their plans match up to their weak areas can be provided. Part of this feedback process could include dissemination of the Improvement Plans at the local level, so that school staff members are aware of the activities to be undertaken.

Conduct follow-up on plan implementation. Regular follow up is needed to ensure that Perkins recipients are putting into place the strategies devised in their plans.

Provide data support. It was clear from the November workshops that many recipients' questions on data issues remain unanswered. Many Perkins recipients are in need of targeted, one-on-one assistance from the State in helping them not only better understand their data, but how to improve processes for collecting the data. As previously mentioned, clearer expectations need to be set for Perkins recipients.

Appendix A – Utah Vocational-Technical Education Accountability Report

Appendix B – Self-Assessment Instrument

Appendix C – Program Improvement Plan Instruments